

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,212,999 B2

Page 1 of 9

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 6, line 41: please delete "\$29.50" and insert --slightly less than \$27.35--.

Column 10, line 10: please delete "value/quality" and insert --value/quantity--.

Column 10, line 12: please delete "quality" and insert --quantity--.

Claim 34, column 16, lines 17-18: please delete "of plurality of" and insert --of the plurality of--.

The Title Page, showing the illustrative Figure, should be deleted and substitute therefor the attached title Page.

Delete Figs. 2, 3A, 3B, 3D, 3E, 9, 4, 6, 7, 10 and substitute therefor the drawing sheets, consisting of Figs

2, 3A, 3B, 3D, 3E, 9, 4, 6, ~~7~~ and 10 as shown on the attached page.

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

McDonnell Boehnen Hulbert & Berghoff LLP  
300 South Wacker Drive  
Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



US007212999B2

(12) **United States Patent**  
Friesen et al.

(10) **Patent No.:** US 7,212,999 B2  
(45) **Date of Patent:** May 1, 2007

(54) **USER INTERFACE FOR AN ELECTRONIC TRADING SYSTEM**

5,077,665 A 12/1991 Silverman et al.

(Continued)

(75) Inventors: **Richard W. Friesen**, Fairfax, CA (US);  
**Peter C. Hart**, San Rafael, CA (US)

EP 0 388 162 A2 \* 3/1990

(Continued)

(73) Assignee: **Trading Technologies International, Inc.**, Chicago, IL (US)

FOREIGN PATENT DOCUMENTS

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/289,550

(22) Filed: Apr. 9, 1999

(65) **Prior Publication Data**

US 2003/0097325 A1 May 22, 2003

(51) **Int. Cl.**

G06Q 40/00 (2006.01)

(52) **U.S. Cl.** ..... 705/37; 705/35; 345/440.2

(58) **Field of Classification Search** ..... 705/37  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,674,044 A	6/1987	Kalmus et al. ....	364/408
4,750,135 A	6/1988	Boilen	
4,799,156 A	1/1989	Shavit et al. ....	364/401
4,823,265 A	4/1989	Nelson	
4,903,201 A	2/1990	Wagner	
5,038,284 A	8/1991	Kramer	

OTHER PUBLICATIONS

How the Futures Markets Work, Jake Bernstein, 1989, New York Institute of Finance, pp. 62-67.\*

(Continued)

*Primary Examiner*—Charles R. Kyle

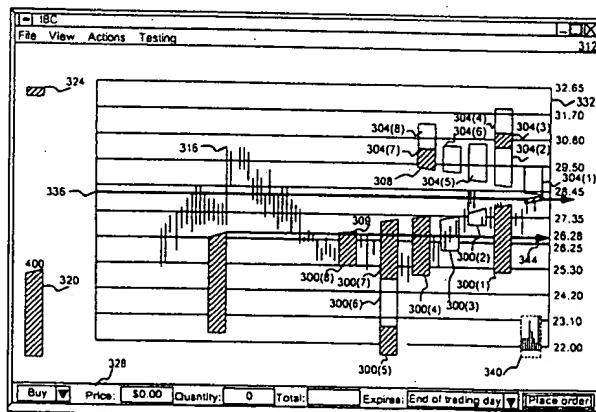
(74) *Attorney, Agent, or Firm*—McDonnell Boehnen Hulbert & Berghoff LLP

(57)

**ABSTRACT**

A user interface for an electronic trading exchange is provided which allows a remote trader to view in real time bid orders, offer orders, and trades for an item, and optionally one or more sources of contextual data. Individual traders place orders on remote client terminals, and this information is routed to a transaction server. The transaction server receives order information from the remote terminals, matches a bid for an item to an offer for an item responsive to the bid corresponding with the offer, and communicates outstanding bid and offer information, and additional information (such as trades and contextual data) back to the client terminals. Each client terminal displays all of the outstanding bids and offers for an item, allowing the trader to view trends in orders for an item. A priority view is provided in which orders are displayed as tokens at locations corresponding to the values of the orders. The size of the tokens reflects the quantity of the orders. An alternate view positions order icons at a location which reflects the value and quantity of the order. Additionally, contextual data for the item is also displayed to allow the trader to consider as much information as possible while making transaction decisions. A pit panel view is also provided in which traders connected to the pit are represented by icons, and are displayed corresponding to an activity level of the trader.

35 Claims, 11 Drawing Sheets



## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,212,999 B2

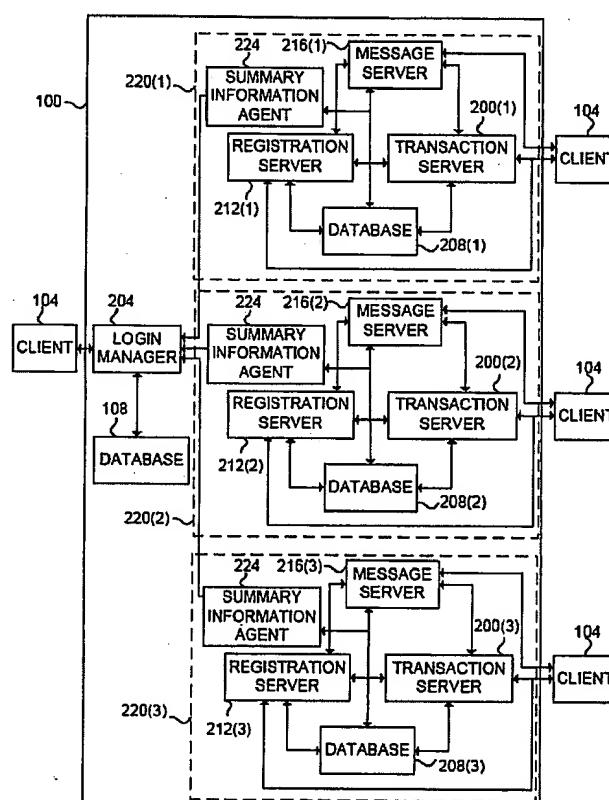
Page 2 of 9

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



**FIG. 2**

### MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
 300 South Wacker Drive  
 Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,212,999 B2

Page 3 of 9

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

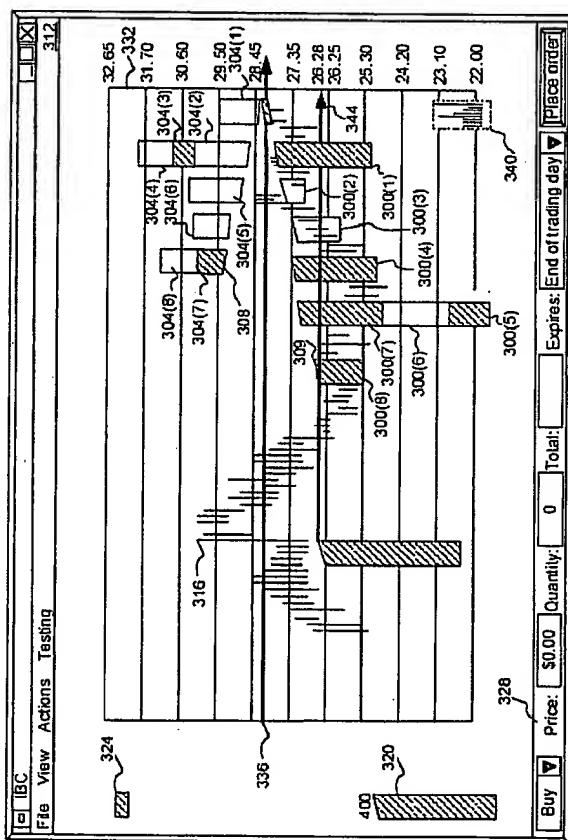


FIG. 3A

### MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
 300 South Wacker Drive  
 Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 4 of 9

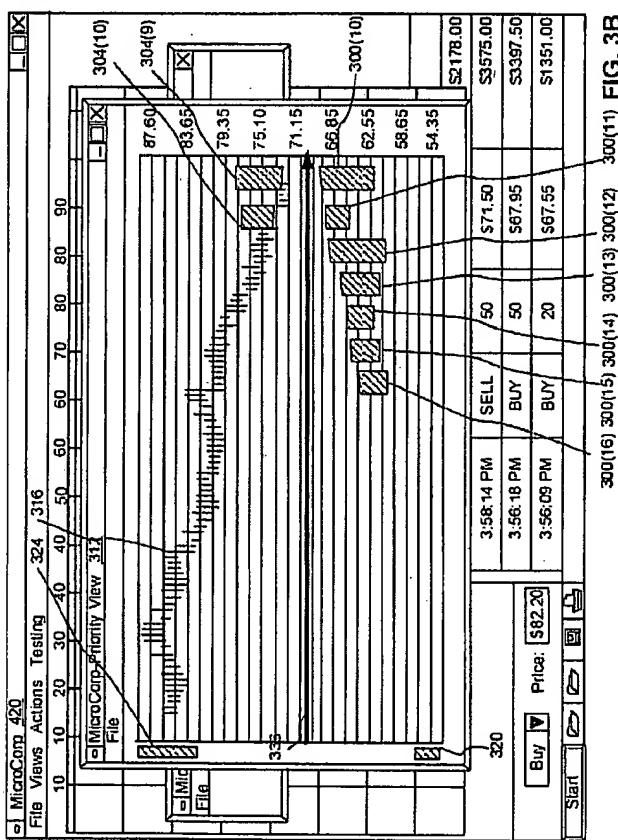
PATENT NO. : 7,212,999 B2

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



300(11) FIG. 3B

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
 300 South Wacker Drive  
 Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

Page 5 of 9

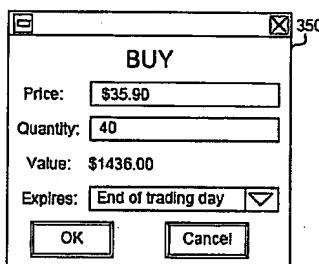
PATENT NO. : 7,212,999 B2

APPLICATION NO.: 09/289,550

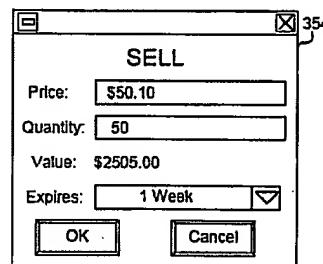
ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

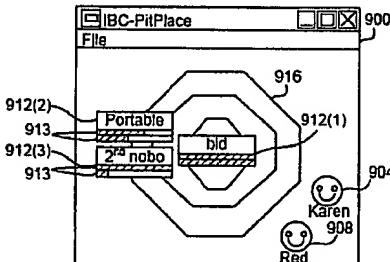
It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



**FIG. 3D**



**FIG. 3E**



**FIG. 9**

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

McDonnell Boehnen Hulbert & Berghoff LLP  
300 South Wacker Drive  
Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,212,999 B2

Page 6 of 9

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

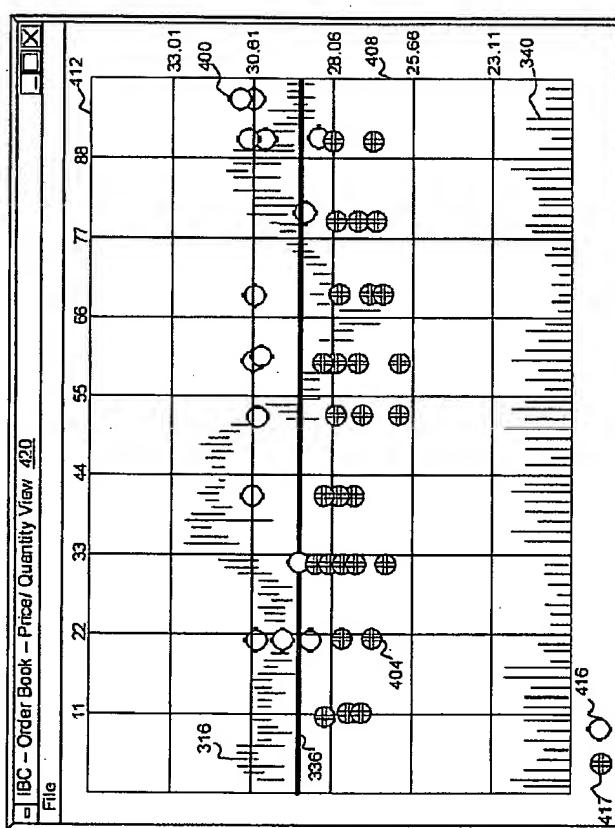


FIG. 4

### MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
 300 South Wacker Drive  
 Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**CERTIFICATE OF CORRECTION**

Page 7 of 9

PATENT NO. : 7,212,999 B2

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

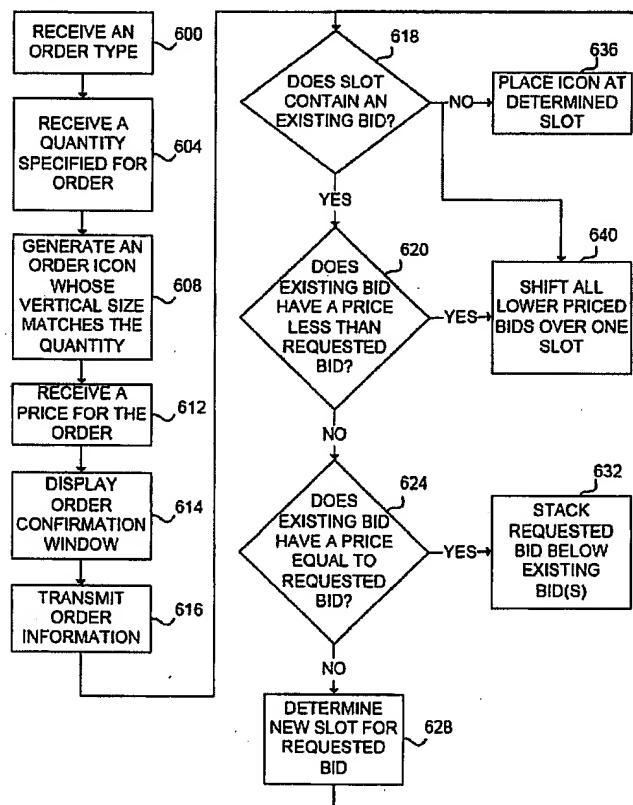


FIG. 6

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
300 South Wacker Drive  
Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 8 of 9

PATENT NO. : 7,212,999 B2

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

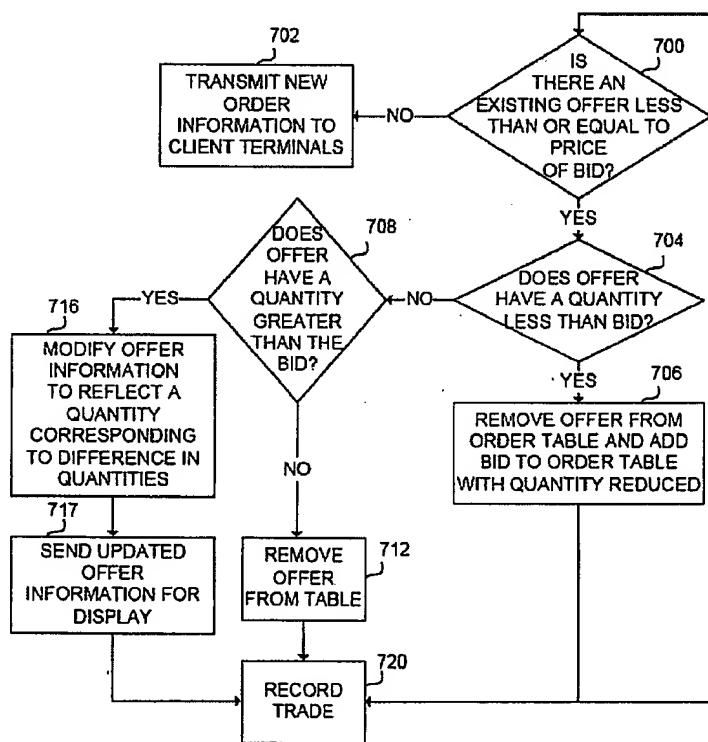


FIG. 7

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
 300 South Wacker Drive  
 Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,212,999 B2

Page 9 of 9

APPLICATION NO.: 09/289,550

ISSUE DATE : May 1, 2007

INVENTOR(S) : Richard W. Friesen et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

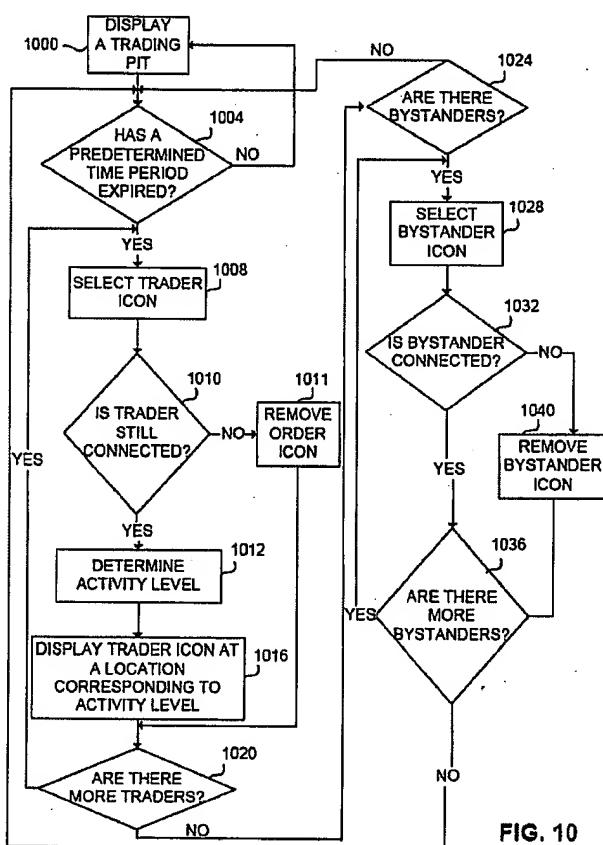


FIG. 10

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McDonnell Boehnen Hulbert & Berghoff LLP  
 300 South Wacker Drive  
 Chicago, IL 60606

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*